Arizona Influenza Pandemic Response Plan Supplement 9: Managing Travel-Related Risk of Disease Transmission

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PRIMARY RESPONSE AGENCIES

- Arizona Department of Health Services
- Arizona Office of Homeland Security
- Arizona Department of Emergency Management
- County Health Departments
- Tribal Health Agencies
- City Police and Fire Departments
- Centers for Disease Control and Prevention
- U. S. Border Patrol

PRIMARY RESPONSIBILITIES

Arizona Department of Health Services Responsibilities:

- Coordinate w/ HHS and CDC on activities related to travel-related risk
- Provide guidance to county healthy departments on implementing travel-related containment measures
- Provide public health information to residents that may travel to countries of concern for exposure

County Health Department and Tribal Health Agencies Responsibilities:

- Ensure readiness to implement travel-related disease containment measures.
- Provide public health information to travelers who visit countries where avian or animal influenza strains that can infect humans (e.g., avian influenza A [H5N1]) or human strains with pandemic potential have been reported.
- Evaluate and manage arriving ill passengers who might be infected with avian or animal influenza strains or human strains with pandemic potential.
- Evaluate and implement quarantine, as necessary, on exposed passengers or other individuals related to travel
- Evaluate the need to implement or terminate travel-related containment measures as the pandemic evolves.

City Police and Fire Departments

 Provide Incident Command and Security related to travel disease control and risk containment strategies

Federal responsibilities (as outlined in the HHS Pandemic Response Plan):

- Work with local points of entry to prevent the importation of influenza-infected birds and animals into the United States.
- Provide state and local health departments with legal preparedness templates for use in implementing quarantine and patient isolation measures.
- Work with travel industry partners to ensure that airplane captains and crew are familiar with procedures for identifying and managing arriving ill passengers.
- Coordinate with other countries and WHO to prevent the spread of novel influenza via international travel.

- Work with state and local health departments and CDC quarantine stations to prevent the importation and exportation of cases of pandemic influenza.
- Develop and maintain procedures for isolating sick and quarantining exposed border crossers on the Arizona-Sonora international border
- Coordinate with other countries and WHO to prevent the spread of pandemic influenza via international travel

I. RATIONALE

The 2003 pandemic of severe acute respiratory syndrome (SARS) demonstrated how quickly human respiratory viruses can spread, especially in a world of modern air travel. Disease spread will likely be even faster during an influenza pandemic because a typical influenza virus has a shorter average incubation period (typically 2 days vs. 7-10 days for SARS associated coronavirus [SARS-CoV]) and is more efficiently transmitted from person to person. If an influenza pandemic begins outside the United States, public health authorities might screen inbound travelers from affected areas to decrease disease importation into the United States. If a pandemic begins in or spreads to the United States, health authorities might screen outbound passengers to decrease exportation of disease or implement domestic travel-related measures to slow disease spread within the United States.

Because some persons infected with influenza will still be in the incubation period, be shedding virus asymptomatically, or have mild symptoms, it will not be possible to identify and isolate all arriving infected or ill passengers and quarantine their fellow passengers. Moreover, if an ill passenger is identified after leaving the airport, it might not be possible to identify all travel contacts within the incubation period for influenza. Nevertheless—depending on the situation—these activities might slow spread early in a pandemic, allowing additional time for implementation of other response measures such as vaccination.

Once a pandemic is underway, exit screening of travelers from affected areas is likely to be more efficient than entry screening to identify ill travelers. Early in a pandemic, this intervention may decrease disease introductions into the U.S. Later, however, as pandemic disease spreads in communities, ongoing indigenous transmission will likely exceed new introductions and, therefore, federal authorities might modify or discontinue this strategy. Voluntary limitations on travel during a pandemic alert and pandemic, as persons decide to limit their own personal risk by canceling nonessential trips, will also decrease the amount of disease spread. Limiting or canceling travel of U.S. residents and others from affected countries will depend on the properties of the pandemic virus that emerges, and will be informed by the facts on the ground at the time of emergence.

II. OVERVIEW

Supplement 9 details travel-related containment strategies that can be used during different phases of an influenza pandemic. These strategies range from distribution of travel health alert notices, to isolation and quarantine of new arrivals, to restriction or cancellation of nonessential travel. ADHS and county health departments will implement these strategies in coordination with CDC quarantine stations located at 18 U.S. ports of entry (currently no CDC quarantine

station exists in Arizona; the nearest station is the Los Angeles station). The actions for the Interpandemic and Pandemic Alert Periods focus on preparedness planning and on management of arriving ill passengers on international flights, primarily at Sky Harbor International Airport, in Phoenix, and on cross-border travel associated with the Arizona-Sonora border. The actions for the Pandemic Period focus on travel-related measures to decrease disease spread into, out of, and within the United States.

III. INTERPANDEMIC AND PANDEMIC ALERT PERIODS

A. Preparedness for implementation of travel-related containment measures

If a pandemic begins outside the United States, early application of travel-related control measures (i.e., identification and isolation of ill travelers, quarantine of close contacts) might slow the introduction of the virus into Arizona, allowing more time for healthcare preparedness efforts.

The effectiveness of these measures might be limited because asymptomatic travelers can transmit disease, travelers in the incubation phase might not become symptomatic until after arrival at their destinations, and it might not be possible to trace contacts within the incubation period for influenza. Results of mathematical models suggest that even with international flights, if persons are asymptomatic but incubating influenza when they board, they may remain asymptomatic when they arrive and, therefore, may not be detected by either exit or entry screening. Nevertheless, the ability to detect some cases early in the pandemic may slow disease spread even for a short time.

Actions

1. Engaging community partners

While primary planning and response activities occur at the local level (county health and city emergency response), ADHS is working closely with Maricopa County, and other affected counties, to engage appropriate community partners and develop and exercise appropriate plans. Community partners currently or soon-to-be engaged include:

- City emergency responders (firefighters, police officers)
- Local members of the legal community
- Emergency medical services and other emergency responders
- Referral hospital personnel
- Representatives of Sky Harbor International and Tucson International Airports,
- CDC Quarantine officers
- U. S. Border Patrol
- Political leaders
- American Red Cross and other non-governmental organizations
- Business services

2. Protocols for managing ill travelers at ports of entry

County health officials are responsible, in conjunction with ADHS, for developing protocols for managing ill travelers at airports. These protocols include provisions for:

- Meeting flights with a reported ill passenger
- Establishing notification procedures and communication links among organizations involved in the response
- Reporting potential cases to ADHS (ADHS will ensure reporting to CDC)
- Providing a medical assessment of the ill traveler and referral for evaluation and care
- Separating the ill traveler from other passengers during the initial medical assessment
- Transporting the ill traveler to a designated healthcare facility (see also Supplement 3)
- Identifying other ill passengers and separating them from passengers who are not sick
- Transporting and quarantining contacts, if necessary (see #3 below)
- Enforcing isolation and quarantine, if necessary, when ill travelers or their contacts are uncooperative

A copy of the final version of the Maricopa County/Sky Harbor Airport Quarantine Plan will be included as an Appendix to Supplement 9, when it is completed.

Phoenix Sky Harbor Airport is currently being considered as a future site of a CDC Division of Quarantine Station. This Station would be the lead response entity for managing ill travelers at Sky Harbor, as well as the lead point of contact for federal quarantine actions in Arizona. If this site becomes a Quarantine Station, Supplement 9 will be updated, to reflect any necessary changes in protocols.

- U. S. Border patrol is the primary agency responsible for identifying potential cases of pandemic influenza crossing the international border into Arizona. Border Patrol has developed a Standard Operating Guideline detailing the procedures for:
 - Detaining and isolating suspect cases
 - Transporting such cases to referral hospitals
 - Specimen collection and transport to the Arizona State Health Laboratory
 - Quarantining contacts

Border Patrol is working with the Arizona Department of Health Services, and the border counties and tribes on this Guideline. A copy of the final version of the guideline will be included as an appendix in future versions of this Supplement.

3. Quarantine preparedness at ports of entry

County health officials, in collaboration with the ADHS, need to identify quarantine facilities for housing passengers, crew, and emergency workers who may have been exposed to an ill traveler. These plans need to account for:

- Temporary quarantine (a few hours to a few days), until the results of diagnostic tests become available
- Longer-term quarantine (up to 10 days) if a diagnosis of pandemic influenza is confirmed
- The provision of goods and services to persons in quarantine (see Supplement 8).

4. Legal preparedness

The primary legal remedies for preventing the introduction, transmission, and spread of communicable diseases related to travel are the county and state legal authorities prescribed in the Arizona Revised Statutes (36-264, 36-787-9) (see Supplement 8 for a better explanation of quarantine authorities). The Federal government has primary responsibility for preventing international importation of diseases. The U.S. Public Health Service authority for quarantine relates to international travel, as well as travel between states, to help prevent domestic disease spread. These authorities are used at the state and local level when such authorities don't exist at the local level or there is no capacity to enact local level authorities.

State and local authorities are primarily responsible for restricting travel within their borders, although there is no statutory authority in Arizona for large scale travel restrictions, especially related to cordon sanitaire, and these measures, therefore, are not currently part of the Arizona Influenza Pandemic Response Plan (see Supplement 8).

B. Health information for travelers

Arizona, through the ADHS website (www.azdhs.gov) and www.az211.gov (see Supplement 10) will link to the CDC's Travelers' Health website (www.cdc.gov/travel/) to provide up-to-date travel notices for international travelers to countries affected by novel influenza viruses during the Pandemic Alert Period and Pandemic Period. These notices are issued depending on the scope, risk for travelers, and recommended preventive measures.

C. Evaluation of travel-related cases of infection with novel strains of influenza

During the Pandemic Alert Period, travel-related cases of infection might be detected after entry into the United States, specifically Arizona, or reported during transit by airline personnel before arrival of an ill passenger. Information on the detection and identification of novel strains of influenza is provided in Supplement 1. Guidance on the clinical management of suspected cases of novel influenza is provided in Supplement 5.

County health departments are required to ensure the completion and implementation of protocols for the management of arriving ill passengers, arriving in their county, who meet the clinical and epidemiologic criteria for infection with a novel strain of influenza, and for the management of contacts of such passengers. ADHS is responsible for assisting counties in the development and implementation of these protocols. Additionally, ADHS is responsible for ensuring all state and local protocols are coordinated with federal protocols and systems.

D. Preventing the importation of infected birds and animals

While there are no legal authorities for ADHS to impose interventions to prevent the importation of infected birds or animals into the state, ADHS works closely with Department of Agriculture and the Arizona Game and Fish Department on all animal issues that relate to human health. For more information on surveillance related to infected birds and animals please see Supplement 1.

IV. THE PANDEMIC PERIOD

Over the course of an influenza pandemic, ADHS and county health authorities might consider a range of travel-related control measures to decrease the spread of disease into or within Arizona. The following factors will be considered in developing policy:

- The relative magnitude, duration, and stage of indigenous transmission versus the risk associated with further introduced cases. When pandemic disease is widespread in the U.S., the additional contribution of introduced cases to the magnitude or spread of the pandemic will be minimal depending on the state of the epidemic in the specific location of introduction.
- The value of compulsory restrictions in a setting of voluntary changes in travel patterns. Voluntary changes in travel will occur during a pandemic as persons choose to cancel nonessential travel to decrease their potential exposure and risk of acquiring influenza infection. In this context, the added value of compulsory restrictions should be considered relative to the societal disruptions that limitations on movement would cause.

A. Travel-related containment measures

1. Travel into Arizona

Early during an influenza pandemic that begins outside the United States, affected county health departments will heighten disease surveillance at airports and maintain close communication with ADHS. ADHS will maintain close communication with U.S. Border Patrol and CDC regarding disease surveillance and containment at the Arizona-Sonora border. Travel-related disease control measures will include management of ill travelers arriving at ports of entry and provision of travel health alert notices to incoming travelers.

a) Managing arriving ill passengers

Identification and management of incoming ill travelers may delay and decrease the introduction of novel influenza strains into the United States during the Pandemic Alert Period. These efforts will continue during the early stages of the Pandemic Period, especially if a pandemic strain emerges in another country but has not yet entered the United States.

Once the pandemic has spread outside and within the United States, screening for arriving ill passengers will become less useful and feasible. Although exit-screening of travelers from affected areas is likely to be a more effective disease control measure, its effectiveness too will be limited.

To manage arriving ill passengers, public health authorities or quarantine officers will need to do the following:

- If a suspected case of pandemic influenza is reported aboard an arriving airplane during the early stages of a pandemic, obtain preliminary information about the ill passenger, and advise the captain and crew on patient isolation and infection control.
- If the likelihood of pandemic influenza infection appears high, established airline quarantine response plans (see Interpandemic And Pandemic Alert Periods-3.A.2 above) The major objective activities of these plans are to:

- Notify the airport to mobilize its first responders, and arrange for patient transport and preparation of quarantine facilities.
- Meet the airplane, perform a medical evaluation of the ill traveler, and assess the risk to public health.
- o Inform the passengers and crew of the situation, and do not allow them to disembark until the evaluation is complete.

b) Travel health precautions and warnings

As the pandemic spreads from country to country, CDC will update country-specific travel notices and post them on the CDC Travelers' Health website (http://www.cdc.gov/travel/). ADHS and county health officials will assist in providing this information to the public through websites (e.g., www.azdhs.gov, www.az211.gov), information lines, and the local media (see Supplement 10).

c) Travel-related measures at early stages of a pandemic

When there is limited transmission in other countries and potential for importation of cases into the United States, specifically Arizona, ADHS and county health departments, in conjunction with federal partners, may conduct the following actions, depending on status of statewide disease spread, and the established epidemiology of the pandemic:

- Initiate enhanced disease surveillance at ports of entry.
- Provide guidance on infection control procedures that can be implemented, if needed, on airplanes (e.g., separate the ill passenger from other passengers; provide the ill passenger with a mask or tissues to prevent viral spread via coughing).
- Isolate arriving ill passengers or border crossers, and quarantine their contacts as necessary.
- Collect information on all arriving passengers if notification is warranted (e.g., for antiviral administration, vaccination, or health monitoring).
- Ensure appropriate containment of exposed border-crossers, as feasible

d) Travel-related measures at later stages of a pandemic

If the situation worsens overseas and there is extensive and sustained transmission in other countries, CDC and ADHS and county health departments may conduct these actions:

- Distribute travel health alert notices to passengers arriving from affected countries (i.e., countries for which health warnings have been issued).
- Post travel health alert notices in airports (e.g., on posters).
- Recommend canceling or limiting nonessential travel to affected countries.
- Further collection of information on all arriving passengers will likely not be feasible due to resource needs

2. Travel out of the United States

If the level of influenza transmission in the United States presents a high risk for exportation of disease, CDC and ADHS and county health authorities will likely conduct the following actions:

- Distribute travel health warnings to outbound passengers who live in or have visited affected parts of the United States.
- Recommend the cancellation of nonessential travel to other countries from ports of entry in affected parts of the United States.

• Recommend the implementation of pre-departure screening (e.g., temperature screening or visual screening) of outbound travelers.

3. Travel within the United States and Arizona

If the level of influenza transmission in a U.S. area is high and if most other areas have not yet been affected, CDC and state authorities will consider recommending the limiting or canceling of nonessential travel to that area or to implement increased disease surveillance measures. If the area of high disease transmission includes Arizona, community infection control measures will be used to slow the spread of illness within the state (see Supplement 8).

B. De-escalation of travel-related control measures

Decisions to de-escalate control measures related to international travel will be made in consultation with CDC.